

## List of Figures

Figure 1. Royal red shrimp <i>Pleoticus robustus</i> .....	15
Figure 2. Scarlet shrimp <i>Plesioenaeus edwardsianus</i> .....	15
Figure 3. Length types illustrated on different fish tails .....	30
Figure 4. Squid mantle length illustrations.....	30
Figure 5. Scallop shell height illustration .....	30
Figure 6. Clam shell width illustrations .....	31
Figure 7. Crab carapace width illustration .....	31
Figure 8. Lobster carapace length illustration .....	31
Figure 9. Examples of otoliths from a variety of fish .....	32
Figure 10. Standard method of dissecting a fish skull to remove otoliths .....	32
Figure 11. Location and angle of the necessary cut to remove otoliths from various fish .....	33
Figure 12. Location from which to collect scales from various fish .....	34
Figure 13. Age structure envelope.....	35
Figure 14. Tuna length measurements and age sample parts illustration.....	38
Figure 15. Shark length measurements and age sample parts illustration .....	38

Figure 16. Billfish length measurements and age sample parts illustration .....	38
Figure 17. Swordfish length measurements and age sample parts illustration.....	38
Figure 18. Tagging location for billfish and tunas .....	39
Figure 19. Tagging location for sharks .....	39
Figure 20. Sex determination in sharks .....	41
Figure 21. Cross section and whole views of female swordfish gonads .....	42
Figure 22. Cross section and whole views of male swordfish gonads .....	43
Figure 23. Ventral view of a female lobster .....	44
Figure 24. Ventral view of male lobster .....	44
Figure 25. Ventral view of female crab abdomen .....	45
Figure 26. Ventral views of male crab abdomen .....	45
Figure 27. Cetacean body measurements .....	47
Figure 28. Pinniped body measurements .....	47
Figure 29. External sex characteristics of cetaceans.....	48
Figure 30. External sex characteristics of pinnipeds.....	48

## **List of Figures (con't)**

Figure 31. Internal organs of cetaceans .....	49
Figure 32. Internal organs of pinnipeds .....	49
Figure 33. Sea turtle measurements .....	50
Figure 34. Proper positioning of a turtle for resuscitation .....	51
Figure 35. Inconel turtle tags.....	51
Figure 36. American shad and hickory shad .....	52
Figure 37. Blueback herring and alewife.....	53
Figure 38. Little skate and winter skate .....	54
Figure 39. Loligo squid and illex squid .....	55
Figure 40. Atlantic sturgeon and shortnose sturgeon .....	56
Figure 41. Little tunny, Atlantic bonito and skipjack tuna .....	57
Figure 42. Mathematical formulas for calculating the volume of a fish tote or basket .....	59